PMS82
FACTORS ASSOCIATED WITH INITIATION OF HIGH-DOSE DULOXETINE AMONG PATIENTS WITH OSTEOARTHRITIS
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OBJECTIVES: To identify pre-treatment predictors associated with high initiating doses of duloxetine therapy for patients with osteoarthritis (OA). **METHODS:** Patients with OA diagnosis who initiated duloxetine between November 1, 2010 to March 31, 2011 were selected from a medical and pharmacy claims database. The dispense date of the first duloxetine prescription preceded by at least a 90-day gap in medication supply was defined as the index date. Comorbidities and prior medication use were assessed during six months prior to the index date. Multiple logistic regression models were performed to identify predictors of initiating duloxetine: 1) <60mg versus 60mg, and 2) >60mg versus 60mg. **RESULTS:** A total of 2034 OA patients (mean age 63.7 years; 75.5% female) who initiated duloxetine were identified. Common comorbidities included hypertension (57.4%), depression (35.3%) and diabetes (29.4%). Common pain medications used prior to duloxetine initiation were opioids (71.5%, 69.4% and 16.5% on short- and long-acting opioids, respectively), antidepressants (52.4%), and non-steroidal anti-inflammatory drug (NSAIDs, 36.5%). Of the duloxetine initiators, 50.3% started on 60mg, 38.7% <60mg and 10.9% >60mg. Compared to patients 18-44 years old, patients 75+ years old were more likely to start on a dose<60mg (Odds Ratio [OR]: 1.89, 95% Confidence Interval [CI]: 1.19-3.01). Patients with prior use of opioid (OR: 0.75, 95% CI: 0.60-0.94) or hypertension (OR: 0.74, 95% CI: 0.60-0.92) were less likely to start on <60mg, whereas patients with prior use of NSAIDs (OR: 1.24, 95% CI: 1.01-1.53) or malignancy (OR: 1.53, 95% CI: 1.06-2.21) were more likely to start on <60mg. Patients with prior use of duloxetine (OR: 1.67, 95% CI: 1.08-2.57) or depression (OR: 1.61, 95% CI: 1.12-2.31) were more likely to start on a dose>60mg. **CONCLUSIONS:** Most of the patients initiated duloxetine at 60mg/day. Presence of selected comorbidities and prior use of medications were associated with higher starting dose of duloxetine among OA patients.

PMS83
ADHERENCE AND URIC ACID GOAL ATTAINMENT WITH URATE LOWERING THERAPY IN PATIENTS WITH GOUT
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OBJECTIVES: Evaluate patient and prescriber characteristics associated with gout patients newly initiating allopurinol; evaluate adherence within this population. **METHODS:** Retrospective study of gout patients was conducted using Kaiser Permanente Southern California health care data. Patients aged 18 years and older with a diagnosis of gout (ICD9 274.xx) and allopurinol prescription from January 1, 2007 to June 31, 2010 were included. Incident allopurinol users were defined as patients that had no allopurinol prescription within 12 months prior of the 1st gout diagnosis (index date). Patients had at least 12 months of follow up after their 1st allopurinol prescription. Descriptive statistics such as age, gender, race, co-morbid conditions, concomitant medications, prescriber specialty, and allopurinol dose adjustment were calculated comparing patients at sUA goal (<6mg/dl) or not at sUA goal. MPR mean and adherence was measured using the medication possession ratio (MPR) over the follow up time period and was defined as > 80%. **RESULTS:** A total of 9288 gout patients were identified as incident allopurinol users (mean age 60 years, men 78%). All patients had at least one comorbid condition with the following conditions being the most common: hypertension (73%), chronic kidney disease (32%), and diabetes (25%). Hydrochlorothiazide (21%) and furosemide (17%) were the most commonly utilized concomitant medications. At the end of observation, 2,749 patients (30%) were at sUA goal (mean age 63 years, men 71%) versus 6539 patients not at goal (mean age 59 years, men 81%). The mean MPR for patients at goal was 92% versus 77% for patients not at goal. A total of 1793 patients (65%) were adherent and at goal versus 40% were adherent but not at goal. **CONCLUSIONS:** Sixty percent of incident allopurinol users do not have UA goal attainment and are less adherent. Efforts need to be made to improve adherence to better obtain goal attainment.

MUSCULAR-SKELETAL DISORDERS – Research on Methods

PMS84
DERIVATION OF SEVERITY INDEX FOR RHEUMATOID ARTHRITIS AND ITS EFFECT ON HEALTH CARE OUTCOMES
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OBJECTIVES: To develop a claims-based severity index for rheumatoid arthritis (RA) using large US claims data. **METHODS:** Adult patients with at least two RA diagnoses 2 months apart were identified from a large US claims database (10/1/2008-09/30/2009). Patients were required to have at least 12 months continuous health plan enrollment before and after the index date (first RA diagnosis date). A severity index for rheumatoid arthritis (SIFRA) was developed by calculating a weighted sum of 47 RA-related indicators including laboratory, clinical and functional status, extra-articular manifestations, surgical history, and medications assessed by an expert Delphi panel of six rheumatologists. Two versions of SIFRA were derived for patients with and without laboratory information. Correlations between SIFRA and previously validated claims-based indexes for RA severity (CIRAS), and other traditional comorbidity indexes were calculated. The relationship between SIFRA and heath care costs was also examined using histograms. **RESULTS:** The Spearman's rank correlations between SIFRA and CIRAS were 0.525 for SIFRA without laboratory data and 0.539 for SIFRA with laboratory data. The correlations between SIFRA and the Charlson Comorbidity Index (0.1503 without, 0.1135 with laboratory data), Elixhauser Index (0.105 without, 0.079 with laboratory data) and Chronic Disease Score (CDS) (0.255 without, 0.239 with laboratory data) were low. Histograms showed that patients in the upper tercile of SIFRA incurred $9,123 more all-cause health care costs and $1,326 more RA-related health care costs than patients in the lower tercile of SIFRA. **CONCLUSIONS:** SIFRA was found to have moderate correlations with the previously validated CIRAS score, and demonstrated evidence of being a significant determinant of total and RA-related health care costs for RA patients. This study suggests that SIFRA could be an important methodological tool to control for severity in RA-related outcomes research.

PMS85
WHY THE FINDINGS OF PUBLISHED RHEUMATOID ARTHRITIS MULTIPLE TREATMENT COMPARISONS ARE SO DIFFERENT - AN OVERVIEW OF RECURRENT METHODOLOGICAL SHORTCOMINGS
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OBJECTIVES: To methodologically review the published literature on rheumatoid arthritis multiple treatment comparison meta-analysis (MTCs). To identify methodological issues that can explain the substantial discrepancies in the findings of these MTCs. **METHODS:** We searched MEDLINE for rheumatoid arthritis multiple treatment comparisons. Following the PRISMA guidelines, we extracted a large set of methodological items from the identified reviews. These included, but were not limited to, inclusion/exclusion criteria, information sources (e.g., MEDLINE), approaches to dealing with monotherapies versus combination therapies, approaches to dealing with potential covariate effect modifiers (i.e., sources of heterogeneity). **RESULTS:** We identified 11 published MTC, of which 7 were published since 2009. We identified major discrepancies in the inclusion of trials, despite highly similar eligibility criteria and literature searches. The total number of trials covered among all MTCs was 61. The number of trials, however, included in the individual MTCs published since 2009 spanned from 15 to 31 – i.e., 25%-50% of all available trials. We identified inconsistencies in approaches to dealing with monotherapy and combination therapy trials. Most MTCs lumped the two sets of trials without either controlling for the effect of concomitant use of disease modifying anti rheumatic drugs (DMARDs) or separately comparing the effectiveness estimates in the two. Approximately half of the identified MTCs did not explore potential sources of heterogeneity. Among those that did, the explored sources were inconsistent. **CONCLUSIONS:** Major methodological shortcomings and inconsistencies exist throughout published rheumatoid arthritis MTCs. There are many lessons to be learned from these previous publications which can potentially strengthen the current evidence base.

PMS86
USE OF COMMON DATA MODEL TO ENABLE MEANINGFUL COMPARISON OF DISEASE BURDEN AMONG DISPARATE DATABASES
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OBJECTIVES: Use of a Common Data Model (CDM) to standardize underlying data assumptions and format enables consistency in the application of research methods and production of meaningfully comparable results across disparate data sources. This study compared the baseline disease burden, as measured via a standard method deriving Charlson Comorbidity Index (CCI), which was applied to multiple observational databases after all source data was transformed into a standard CDM format. **METHODS:** Two unique patient cohorts, 1) newly diagnosed and treated depression patients (DEP), and 2) newly diagnosed rheumatoid arthritis patients (RA) were identified using equivalent definitions from multiple claims databases which had been previously transformed into a standard CDM format. CCI was calculated for each Cohort using a single SAS macro developed for CCI derivation using CDM-format data Descriptive information on CCI, in aggregate and stratified by age category and gender, was compared separately for the DEP and RA cohorts across all databases. **RESULTS:** Despite a common data format, consistent cohort definitions, and a single method for CCI derivation, the calculated CCI varied by as much as 20% (RA) and 50% (DEP) across the different databases used for this study. Gender had little influence on CCI differential. CCI differential generally decreased with advancing age category for both DEP and RA, with largest differentials exceeding 4-fold in 18-30 age group (DEP) and smallest differentials of 10% in 80+ age group (DEP). **CONCLUSIONS:** Common Data Models provide an efficient way of enabling meaningful comparisons across disparate data sources. Disparities in CCI results, despite identical cohort definitions and the application of a single SAS macro, are likely the result of differences in underlying populations, data capture process, and/or functional ability and/or incentive to record complete information in source data. Future research should focus on how each of these factors may impact disease burden indices.

PMS87
OSTEOARTHRITIS IN FRANCE THE COST OF AMBULATORY CARE IN 2010
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OBJECTIVES: In France, the cost of an osteoarthritic patient has not been estimated for several years.The aim of the study was to evaluate the annual cost of the treatment given to osteoarthritic patients by GP. **METHODS:** The cohort was made